

# APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY J. SOTO

DATE: 12/08/2014

EFFECT ON DWG  
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

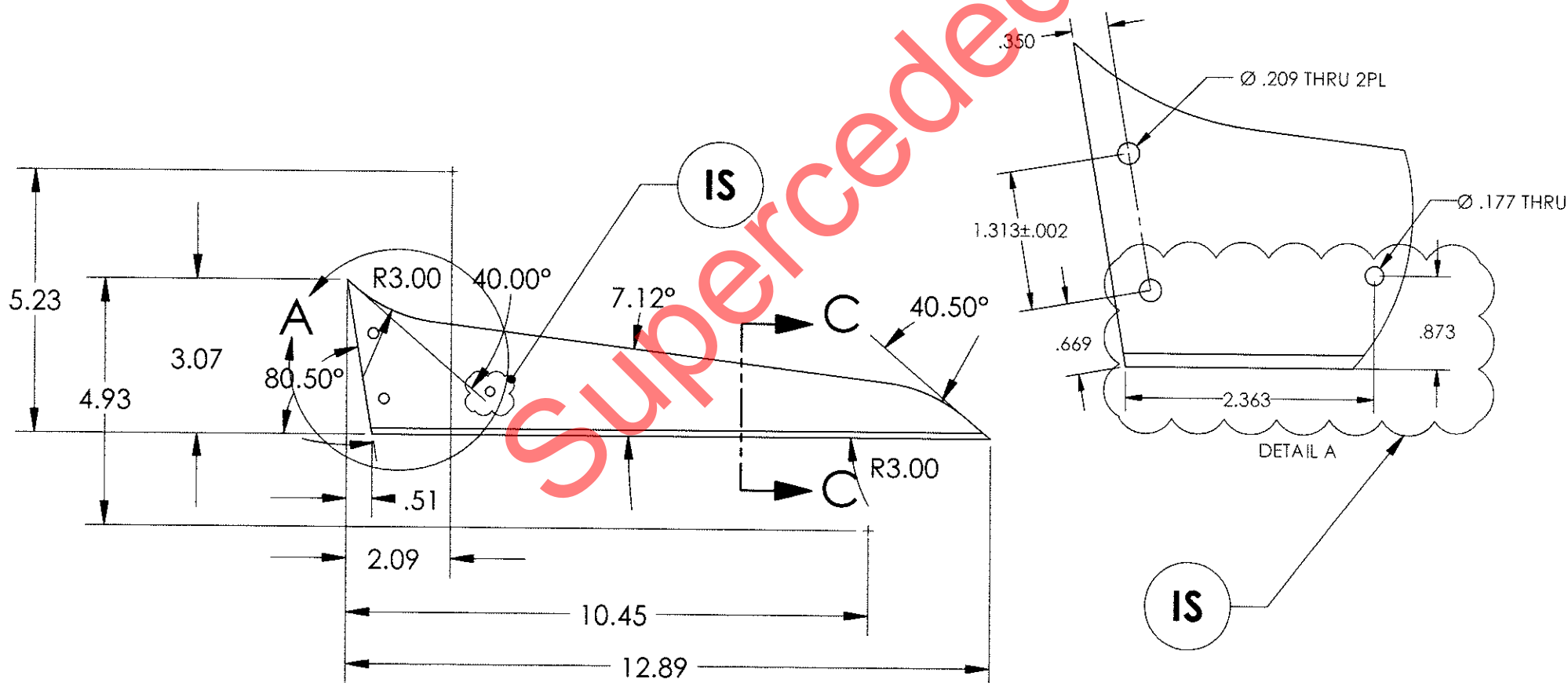
EFF.

NEXT ORDER

TRANSACTION CODES (TC):  
 A-ADD C-CREATE  
 R-REVISE D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

**SHEET 5 IS:**



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

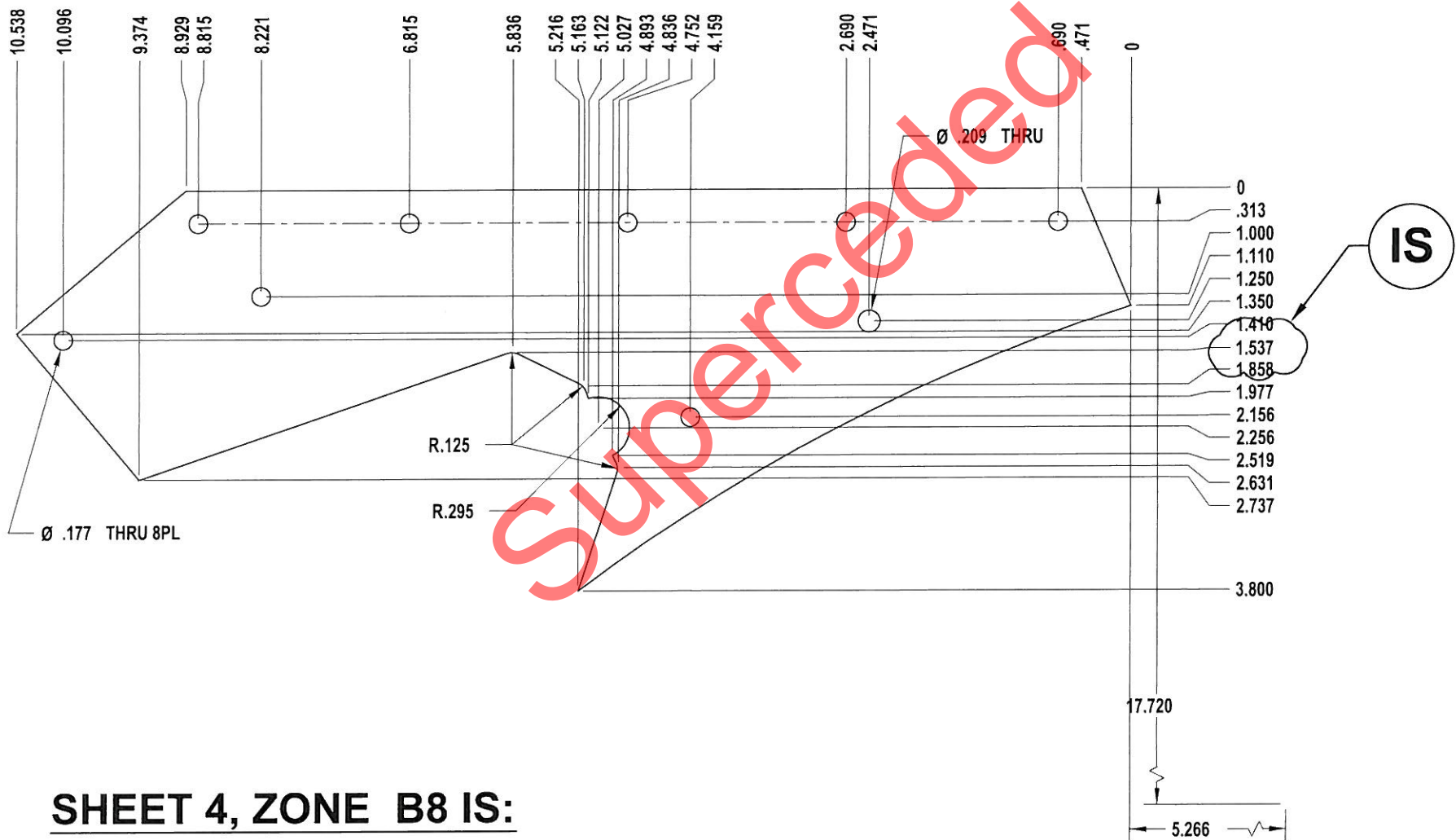
CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03724				SHEET 1 OF 1	
	DWG NO. 646.3300	REV: N/C	PREPARED BY B. PETERS	DATE: 12/05/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: UPPER CUTTER ASSY					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>		QC <i>[Signature]</i>	EFF: NEXT ORDER	
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED ORDINATE DIMENSION.				ECR: D-12-025

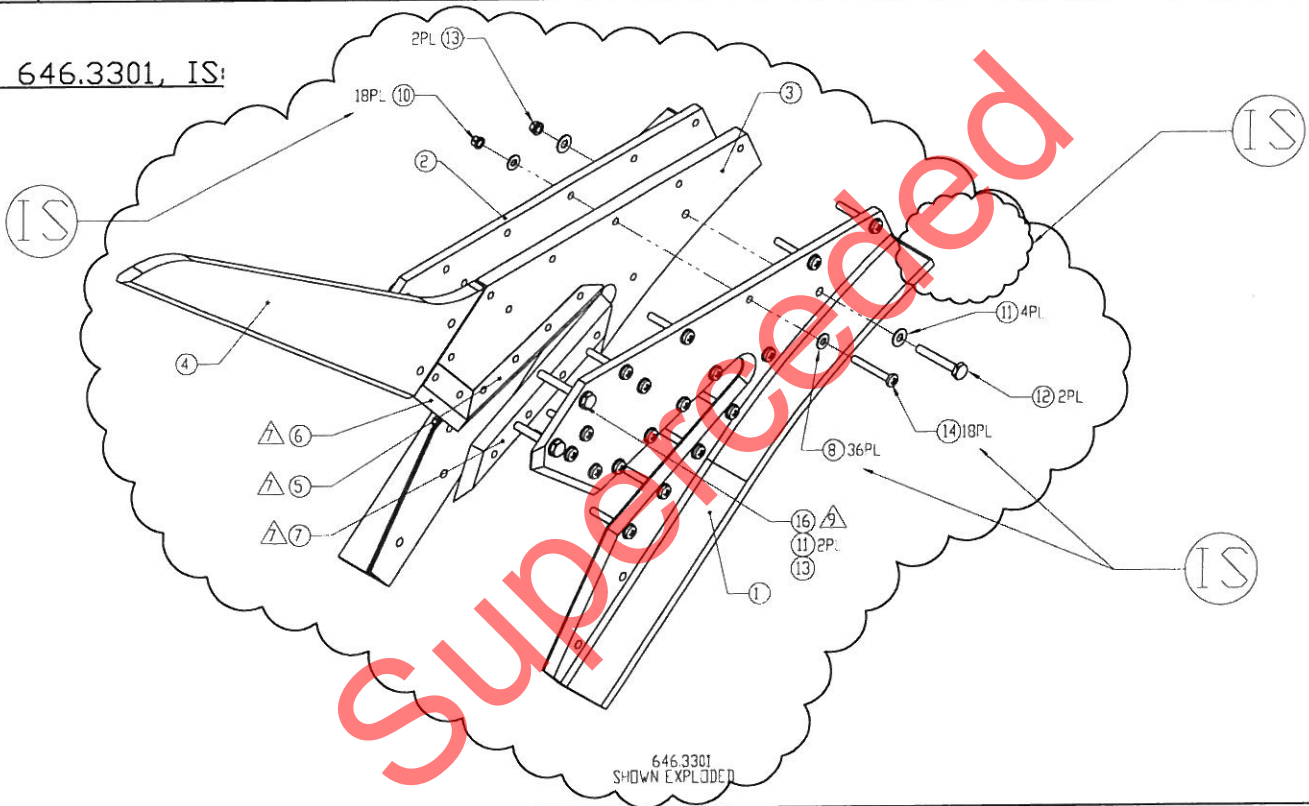


**SHEET 4, ZONE B8 IS:**

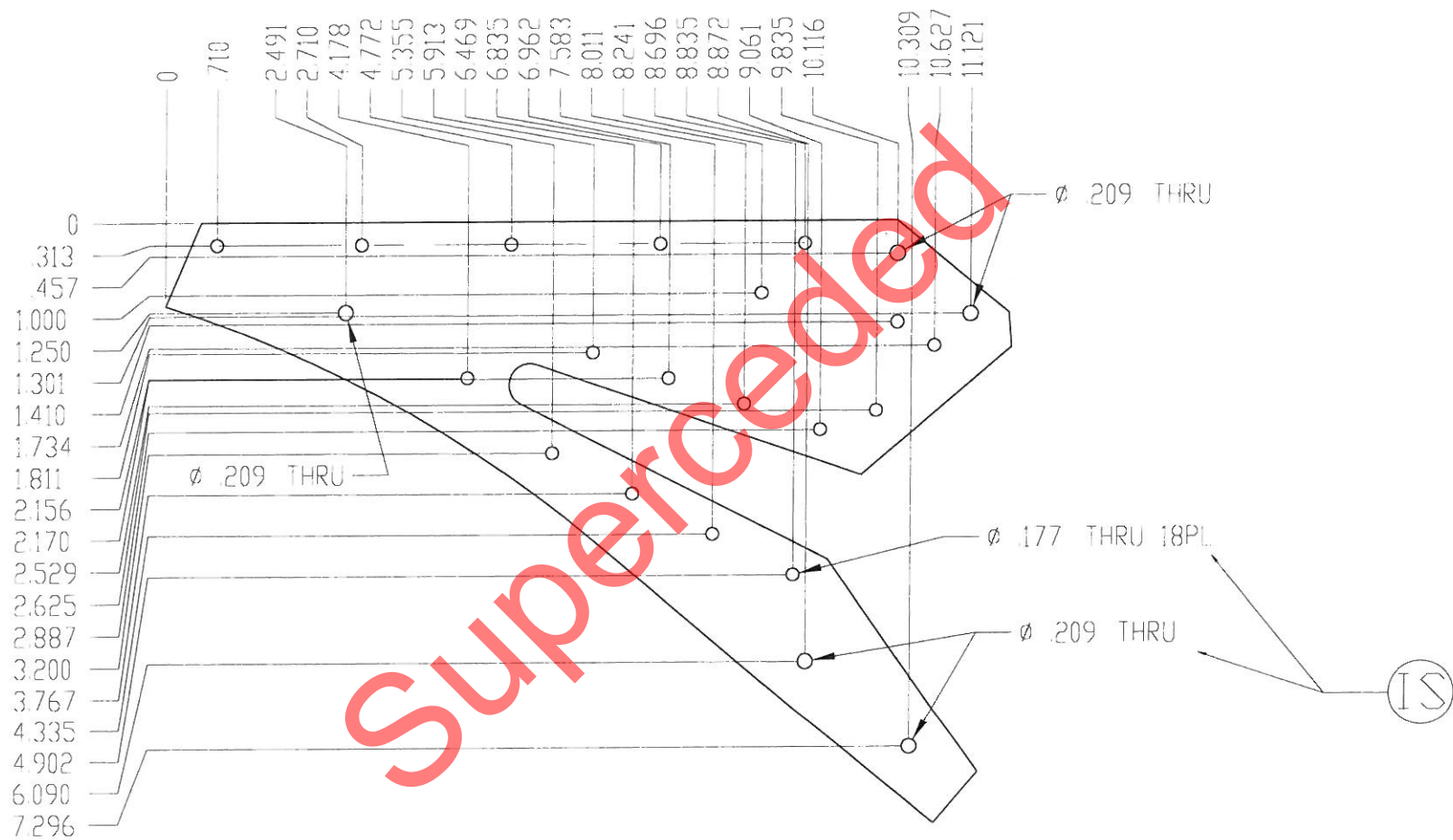
DOCUMENTS EFFECTED:	<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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<b>APICAL</b> INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196			SHEET 1 OF 2	
	DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
	DWG TITLE: UPPER CUTTER ASSY				
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS				

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			3301		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input checked="" type="checkbox"/> INSTALL INSTRUC <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR
				DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

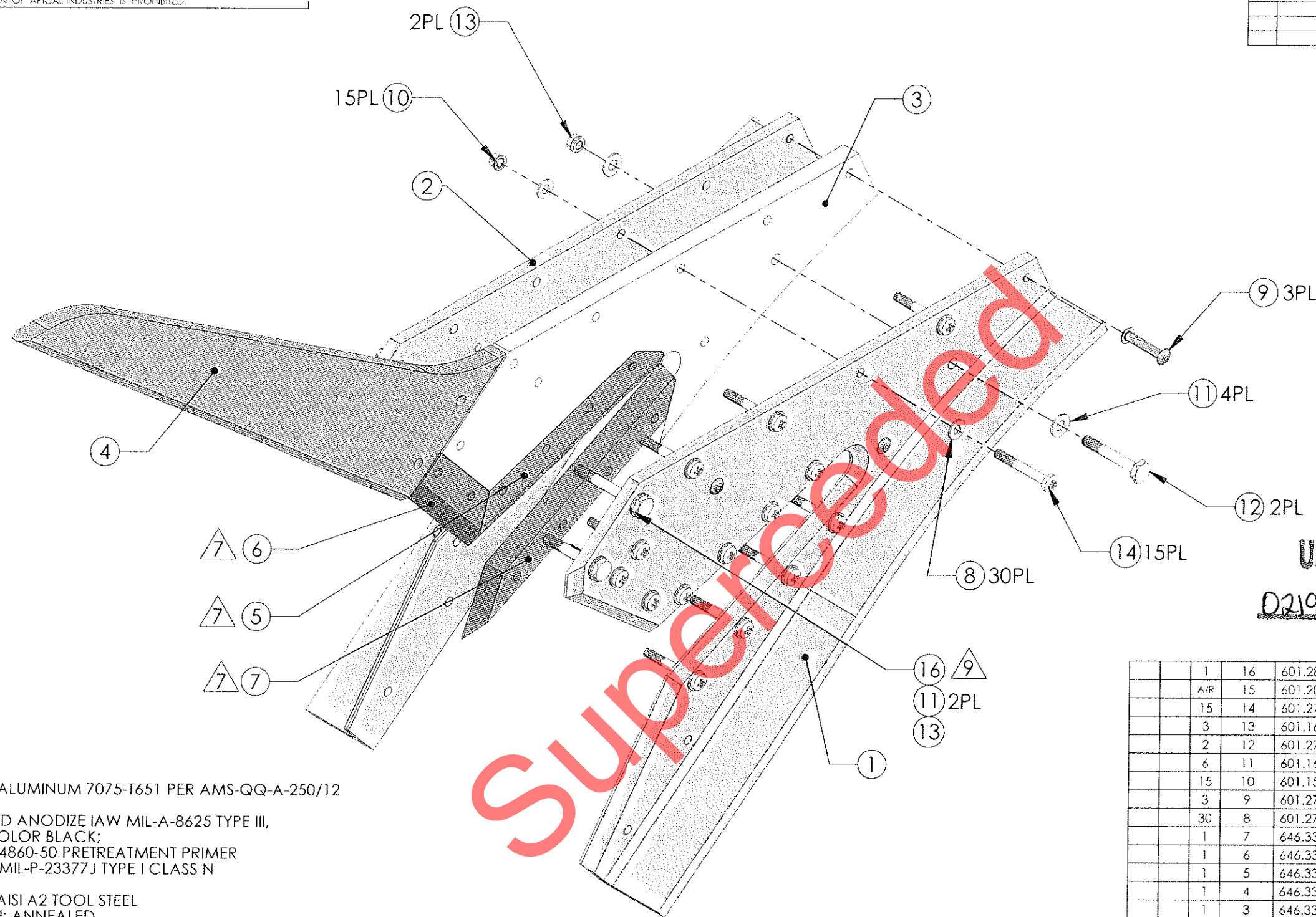
SHEET 3, SECTION VIEW A-A, IS:SECTION A-A 

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(S)

02196, 03724, 04765

NOTES:

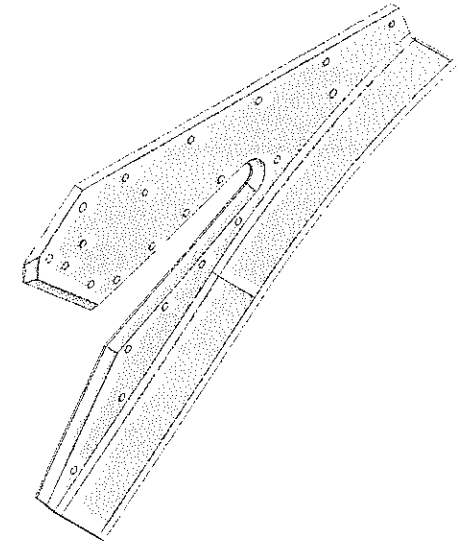
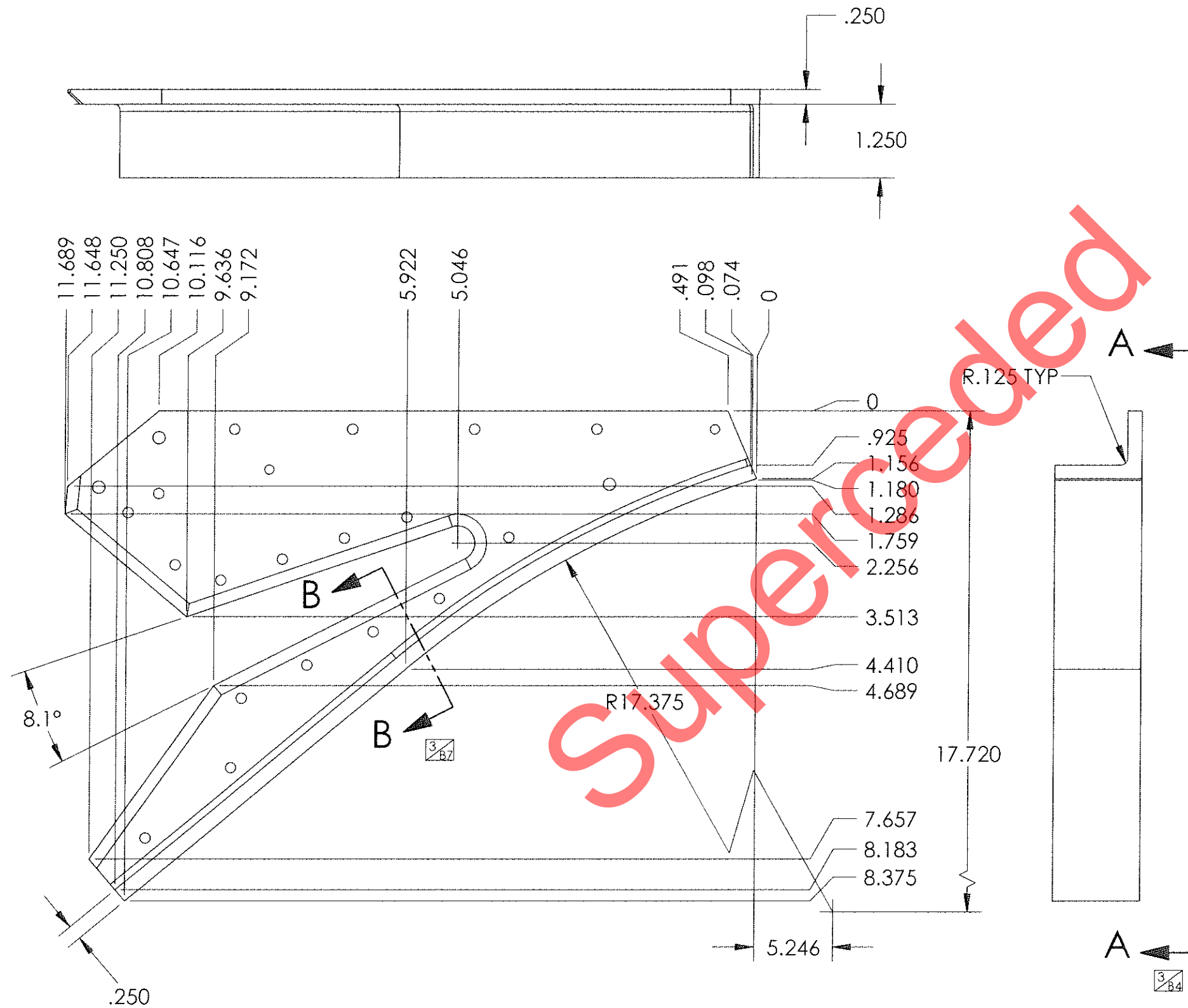
- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL  
CONDITION: ANNEALED  
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301  
SHOWN EXPLODED

QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	16	601.2834	BOLT	AN3-14A	
A/R	15	601.2045	RTV, LOCTITE 598		
15	14	601.2765	SCREW	MS27039-0819	
3	13	601.1624	LOCKNUT	MS21042L3	
2	12	601.2763	BOLT	AN3-12A	
6	11	601.1607	WASHER	NAS1149F0332F	
15	10	601.1541	LOCKNUT	MS21042L08	
3	9	601.2766	RIVET	MS20470ADS-18	
30	8	601.2764	WASHER	NAS1149F0332F	
1	7	646.3316	BLADE	3	4
1	6	646.3315	BLADE	3	4
1	5	646.3314	BLADE	3	4
1	4	646.3313	UPPER GUIDE	1	2
1	3	646.3312	CENTER PLATE	1	2
1	2	646.3311	RH HALF	1	2
1	1	646.3310	LH HALF	1	2
		646.3301	UPPER CUTTER ASSY		
3301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY			PARTS LIST		
NEXT ASSY (S)			APICAL INDUSTRIES		
646.4000			2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
			UPPER CUTTER ASSY		
			UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± 5°		
			SHEET 1 OF 8		

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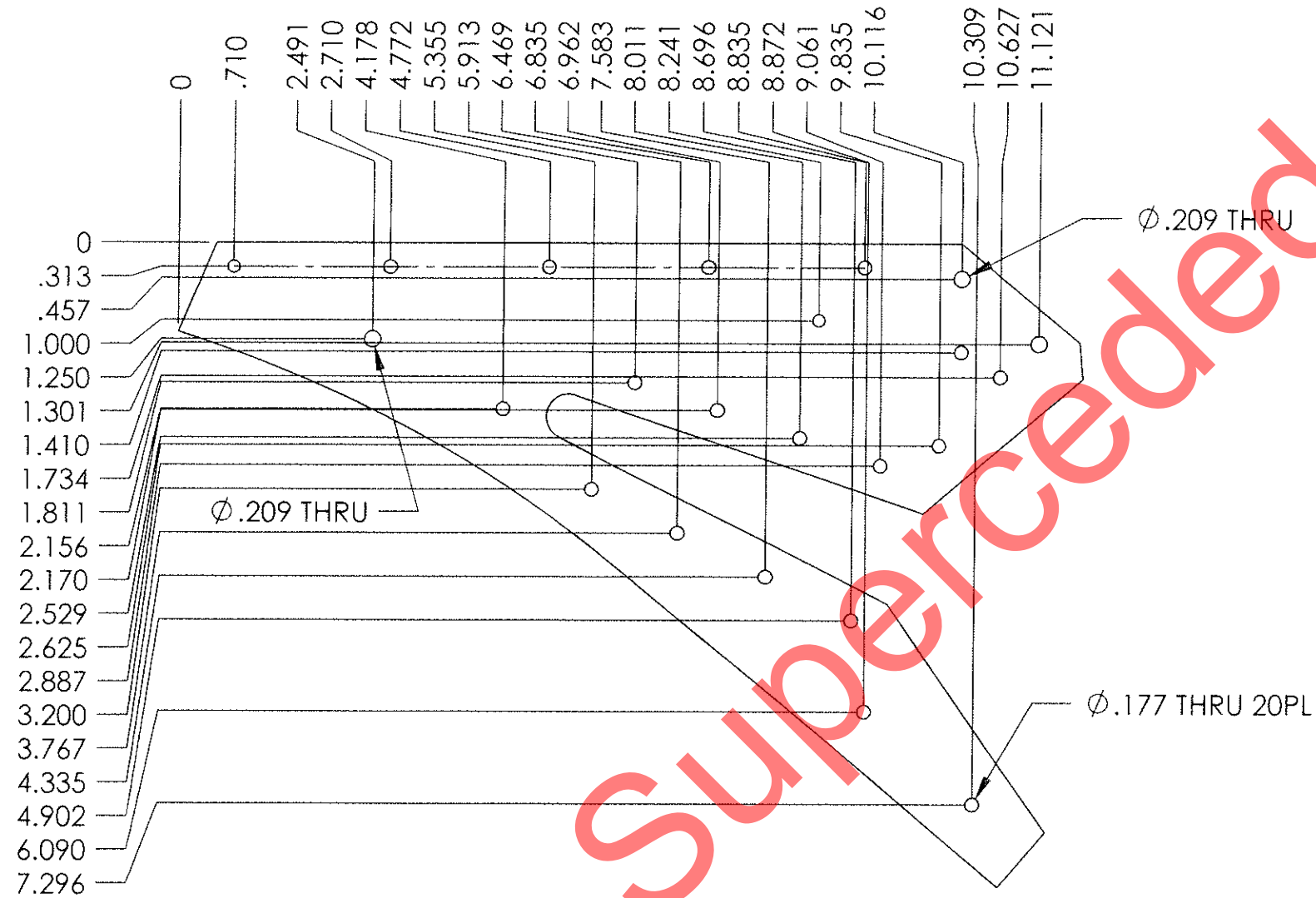
A  
B  
C  
D



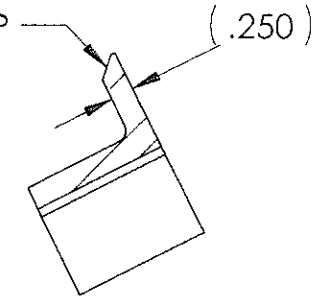
646.3310 SHOWN  
646.3311 OPPOSITE

ORIGINAL DATE IMO-DA-YPI 08-26-08		APICAL INDUSTRIES	
DRAWN BY S. HUFF		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAVO		UPPER CUTTER ASSY	
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B	REV. N/C
		CAGE CODE 07M26	DWG. NO. 646.3300
		SCALE: NONE	SHEET 2 OF 8

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.200 X 45.0° TYP

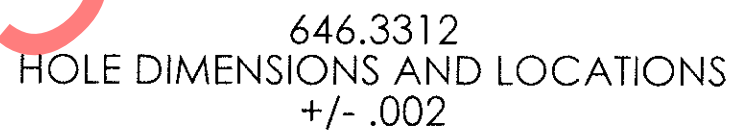


SECTION B-B  $\frac{2}{C2}$

SECTION A-A  $\frac{2}{C6}$

ORIGINAL DATE (MM-DD-YY) 08-26-05		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY S. HUET	CHECKED BY P. BRAVO		
DRAWING APPROVAL		UPPER CUTTER ASSY	
CONTRACT No.		DWG. NO. 646.3300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SCALE NONE	REV. N/C
SIZE B 07M26		SHEET 3 OF 8	

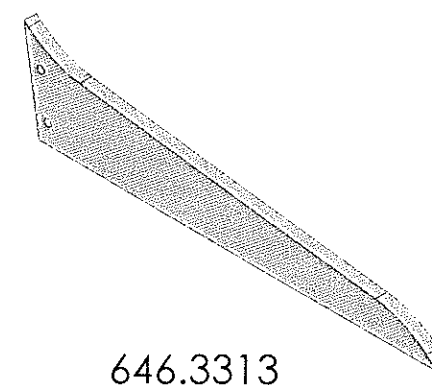
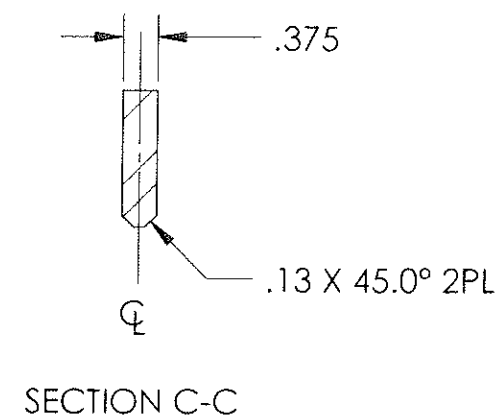
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE 08-26-08	APICAL INDUSTRIES		
INVOICE DATE 08-26-08	2608 TEMPLE HEIGHTS DR.		
QUANTITY 5.00	OCEANSIDE, CA. 92056-3512 (760)724-5300		
CHECKER P. BRAVO	UPPER CUTTER ASSY		
DRAWING APPROVAL P. BRAVO			
08-26-08			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$			
SIZE B	CAGE CODE 07M26	DWG. NO. 646.3300	REV. N/C
SCALE NONE		SHEET 4 OF 8	



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVE

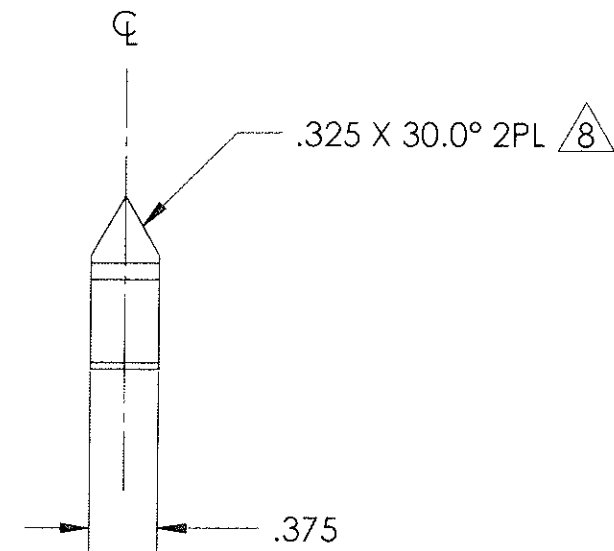
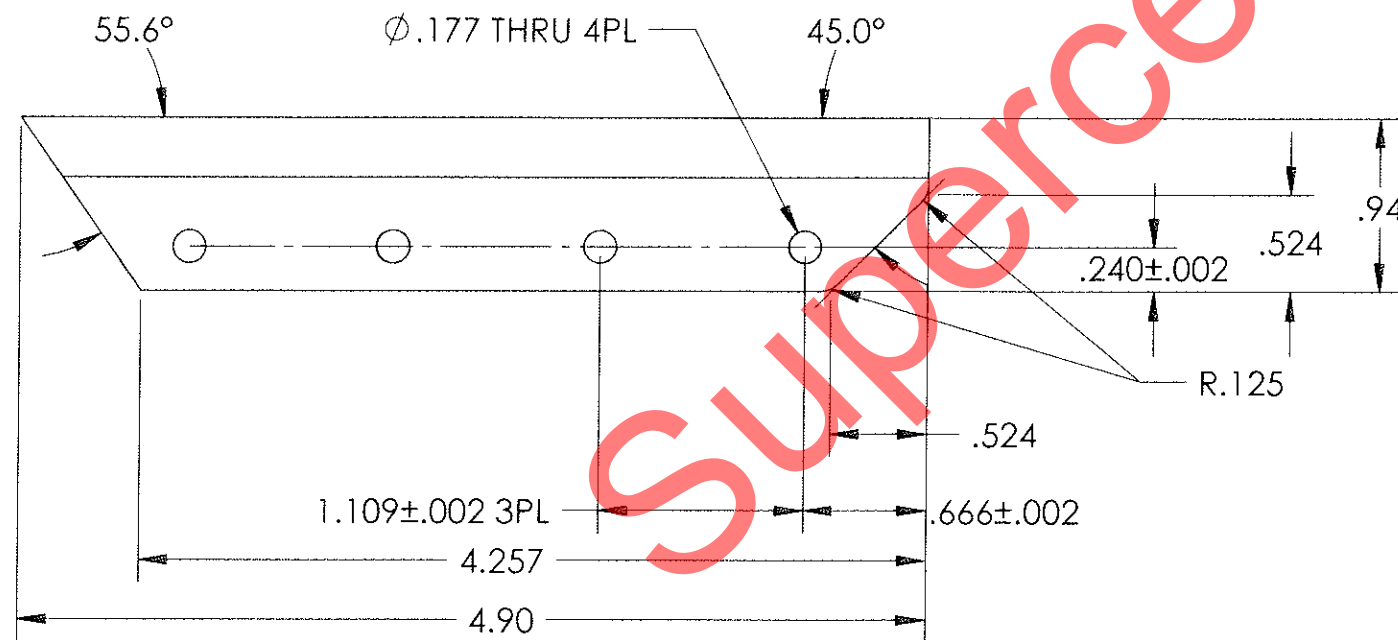
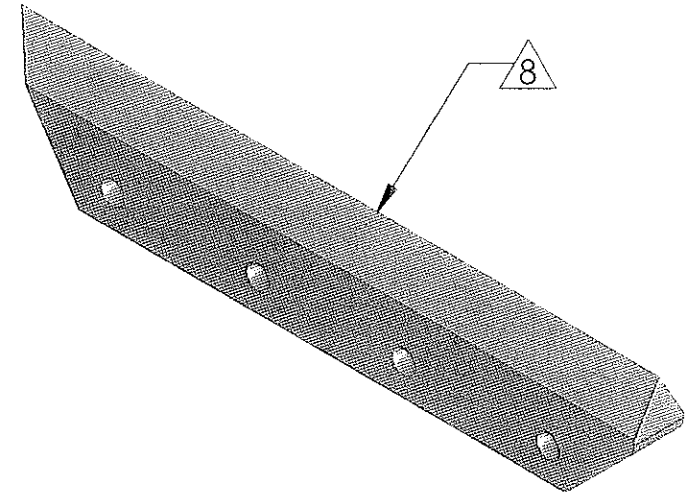


DETAIL A

ORIGINAL DATE (MO, DAY, YR) 08-20-05	APICAL INDUSTRIES		
DRAWN BY S. HUFF	CHECKED P. BRAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 08-26-08	UPPER CUTTER ASSY		
CONTRACT NO.	SIZE B	CAGE CODE 07M26	DWG. NO. 646.3300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SCALE NONE		REV. N/C
			SHEET 5 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

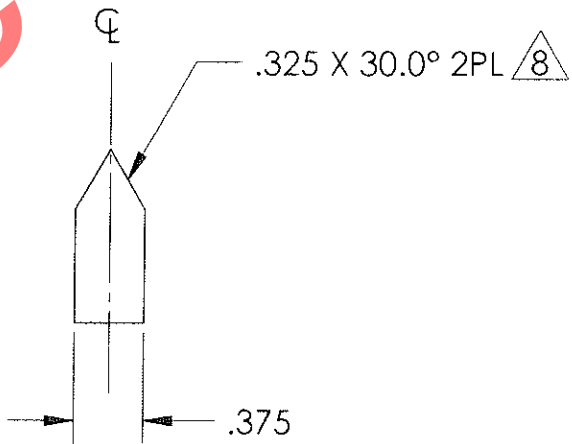
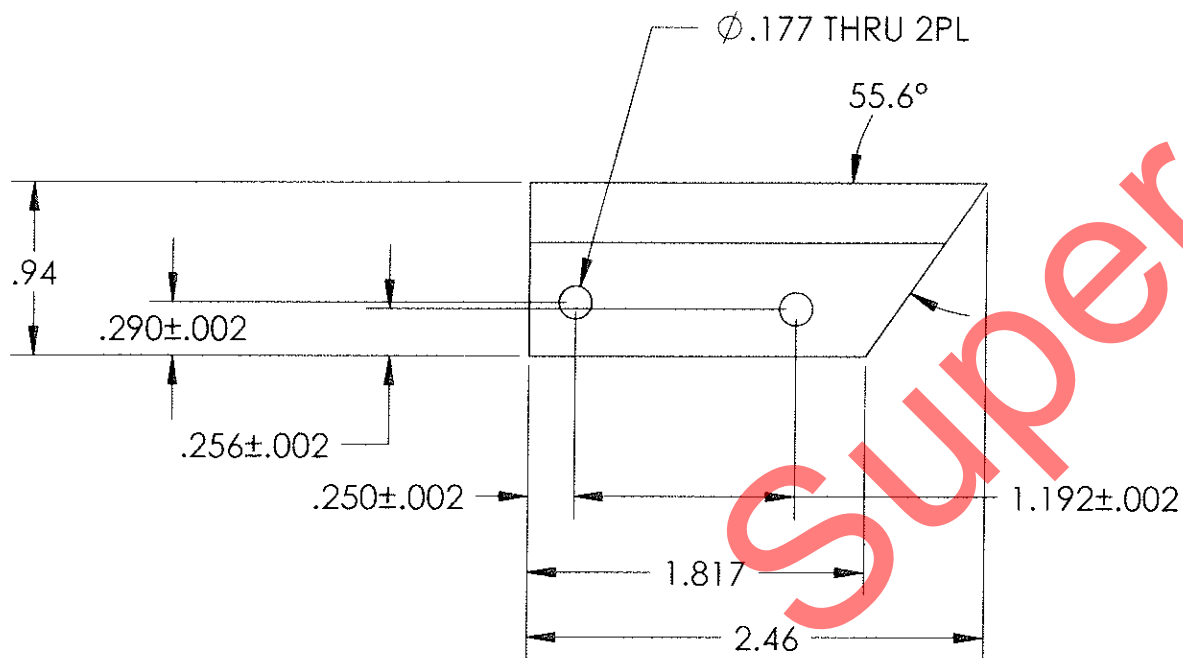
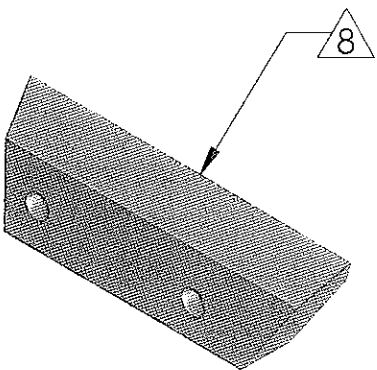


646.3314

ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY S. HUFF	CHECKED BY P. BRAVO		
DRAWING APPROVAL P. BRAVO 08-26-08		UPPER CUTTER ASSY	
CONTRACT NO.		SHEET 6 OF 8	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B	REV. N/C
SCALE NONE		CAGE CODE 07M26	DWG. NO. 646.3300

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

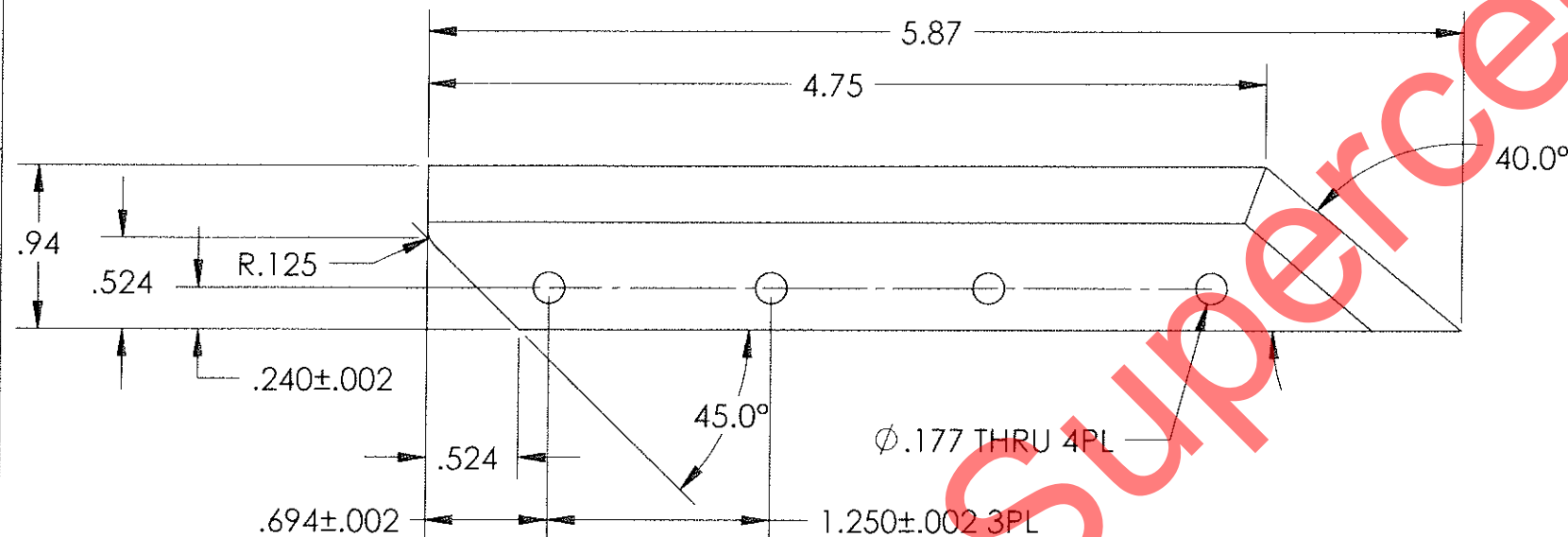
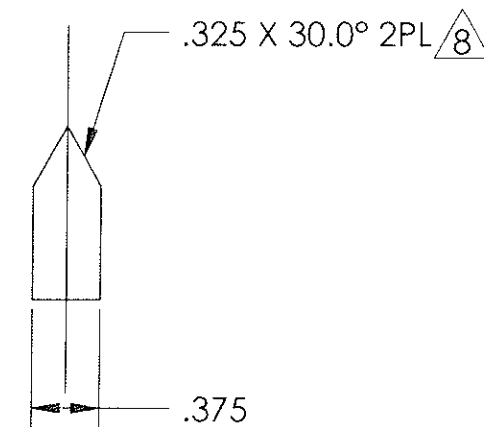
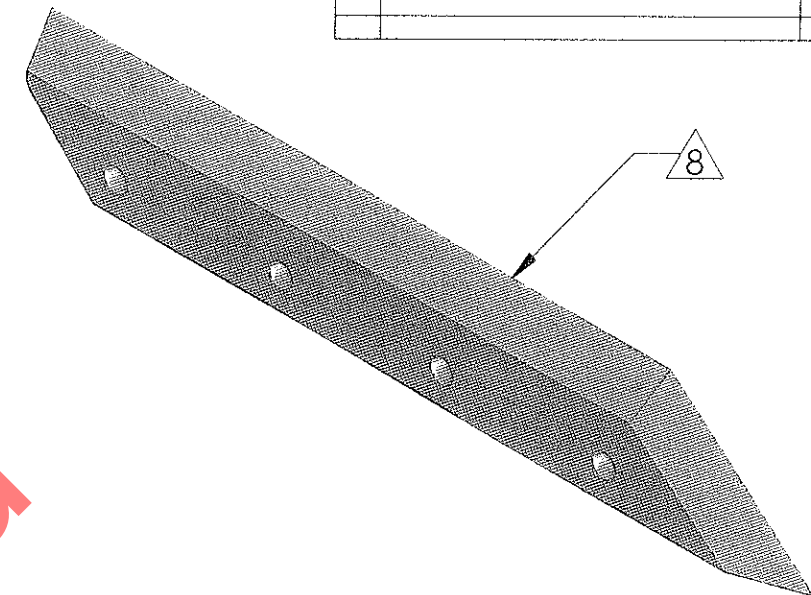


646.3315

ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY S. HUFF	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 08-26-08		UPPER CUTTER ASSY	
CONTRACT No.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET B	REV. N/C
		CAGE CODE 07MZ6	DWG. NO. 646.3300
		SCALE NONE	SHEET 7 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



646.3316

ORIGINAL DATE (MO-DA-YR) 08-26-08	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300					
DRAWN BY S. HUFF						CHECKER P. BRAVO
DRAWING APPROVAL P. BRAVO 08-26-08						
CONTRACT NO.						
UPPER CUTTER ASSY						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$	SRF	CAGE CODE	DWS. NO.	REV		
	B	07MZ6	646.3300	N/C		
	SCALE NONE			SHEET 8 OF 8		